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## Gambling as a Base for Hypothecated Taxation: The UK's National Lottery and Electronic Gaming Machines in Queensland Australia

David Pickernell,  
Welsh Enterprise Institute  
University of Glamorgan  
Pontypridd  
Wales

Kerry Brown  
Andrew Worthington,  
Mary Crawford  
Queensland University of Technology  
Australia

### Summary

Gambling is now a large revenue source for many governments, due to its ease of implementation, popular appeal and high real tax rate it can bear (up to around 40%). It is often promoted by spending on “good causes” designated as “additional” to existing government activity. These effectively hypothecated gambling taxes (specifically designated rather than fed into the general tax pool) are often, however, diverted into education, health, and social and economic development, potentially substituting for taxation raised elsewhere in the economy. There is also evidence that gambling's taxation implications (against income) are doubly regressive, taking disproportionately from lower income groups and giving to those better off. This study utilises two cases: the UK's National Lottery Scheme, and the effects of Electronic Gaming Machine (EGM) proliferation in a low socio-economic region (Logan), of Queensland Australia, in order to illustrate that, despite different contexts, scales, and gambling vehicles, the general distributional issues of cost and benefit exist in the two jurisdictions and as a result can also have geographically disproportionate impacts.

### Introduction

Gambling is now a significant revenue earner for many western federal and state governments, due to its relative ease of implementation, popularity and high real tax rates upon it (up to around 40%). In the UK, for example, in 2001-2 figures derived from National Lottery Commission (2002) show tax revenues of around £580m from sales of lottery products. In Queensland, Australia in 2001-2 \$567m was raised in gambling related taxes, nearly 12% of all state government tax revenue (Queensland Treasury, 2003). The comparison is interesting because the debates concerning gambling are in some ways more advanced in Australia, the scale of gambling tax revenue in Queensland highlights distributional questions more starkly, and as a result the relevant accompanying data concerning gambling revenue raised and how it is spent is also available.

The introduction of state-sponsored gambling is also often accompanied by spending on “good causes”, funded by some of the revenue generated from the gambling activity. These “good causes” funds are effectively, therefore, generated from hypothecated taxes on gambling, a feature actively promoted in the marketing of these activities. Such hypothecation can also be seen as an implicit acknowledgement of the need to mitigate some of the adverse socio-economic impacts of gambling, though Camelot's (2003) social report states that their aim is to maximise the returns to good causes in a socially responsible way. In the UK, the National Lottery spends around 28% of its revenue on “good causes”, whilst in Queensland nearly \$35m per annum is now redistributed from the taxes raised in a “Community Benefit Fund” (CBF). In most cases these schemes begin by spending on projects designated as “additional” to existing government activity (i.e. would not have taken place without the

gambling derived revenues). Often, however, over time at least a proportion of the funds are diverted into areas within the remit of government taxation, particularly education, but also including health and social and economic development, raising the prospect that gambling-related lottery funding substitutes for taxation elsewhere in the economy.

Bailey (1995) argued that the UK's National Lottery would lead to a shift in public expenditure towards a narrow range of projects (often ranking low compared with health and education), and for the need for periodic reviews of the sources and uses of such revenues. This research also raises important policy issues in the public management of such funds, particularly in the case of the UK, where recent changes in the designation of "good cause" (DCMC, 2003b) have caused greater overlap with areas in public spending such as health and education, just as Bailey (1995) advocated, with a third of the money now to be designated for "health, education and the environment", the remainder split equally between sport, art, heritage, and charities.

This paper therefore undertakes a review of the UK situation, but widens the scope to include a geographic analysis of the costs and benefits, as well as exploring the impact of Electronic Gaming Machine (EGM) proliferation in a low-socio-economic areas of Queensland Australia (Logan), where specific concerns had been raised. This approach emphasises the seemingly systematic nature of the disproportional effects occurring through gambling-related revenue raising and use patterns. The purpose of the case studies is not therefore to compare the specific effects of the gambling type (see Worthington *et al* (2003) for example, for a full examination of this aspect in the Australian context) or application-based fund-distribution mechanisms (though both of these are important research questions), but rather to examine the general nature of the public taxation and expenditure issues at different levels (nation-region-locality).

The next section of the paper examines the broad literature concerning the social and economic effects of gambling, particularly in terms of taxation and where the benefits of gambling-funded programmes accrue. The UK Lottery is then examined in terms of these issues and how this impacts disproportionately on poorer regions. The paper also analyses revenue raising and spending effects of EGM's in Logan. The final section draws conclusions regarding the specific public expenditure issues related to gambling and their potential knock-on effects.

### The Tax and Spending Implications of Gambling

Increased gambling activity, as well as raising taxation revenue directly, can also reduce taxation revenue from other, existing, sources. In the UK, for example, the Lottery has reduced the amount spent on traditional football pools, which had been taxed at 37.5% of turnover (Moore, 1994). In view of this the UK National Lottery is officially taxed at 12%. With the 28% of total revenue that the good causes receives (Bailey, 1995), along with effects from VAT and unclaimed prizes, the "real" taxation rate can be seen as up to around 40%. This, however, also depends on which of the good causes funds one classifies as undertaking activities that would otherwise ultimately require taxation-funded government expenditure. For example, only designating health, education and environment under this heading (33.3% of good cause spending) would reduce the "real" tax rate to nearer 22%.

It can also be argued that lottery-generated transactions could further increase taxation revenues through the spending of lottery prizes, retailer commission and operating costs payments. Borg and Mason (1993), however, also found that, in the USA, states without a state income tax, but with high sales and excise taxes, lost substantial non-lottery tax- revenue as a result of instituting a lottery, as high as 23% of the government's lottery proceeds. Additionally it was found that the resultant reduced spending on private sector goods could mean reduced future investment, further reducing future tax revenue. They therefore concluded that lotteries were neither an efficient nor equitable substitute for more traditional tax sources (Borg and Mason, 1993).

Governments also often claim that any lottery "tax" paid is voluntary. However, Heberling (2002) argues that whilst in the USA state legislators view the lottery as a "voluntary tax" that releases tax revenue for other uses, in reality it is highly regressive and should be seen in the same light as any other sales tax in terms of its voluntary nature. Many studies also show the regressive nature of gambling spending generally and hence that its taxation implications (against income) are also regressive. In terms of EGM's, Layton and Worthington (1999) cite previous work (Madhusudhan, 1996; Rivenbark and Roonsaville, 1996; Szakmary and Szakamary, 1995) as evidence that *'the pattern of expenditure*

*may work to the relative detriment of low income individuals and deepen the economic problems that must be addressed by other public support programs'* (p. 430). Their study found support for this contention when they addressed the impact of socio-economic factors on gambling expenditure, using a sample of 8,389 Australian households in 1993-1994. In addition, recipients of aged and veteran-affairs payments have greater probability of being a gambling household (with the exception of casino type games), whilst receipt of unemployment benefit had a positive impact on the probability of using Lotto and poker machine gambling. In addition, households where the reference head has a 'blue collar' occupation had a higher probability of poker machine gambling,

In the case of lotteries, Price and Novak's (1999) analysis of Texas lottery games found them all to be highly regressive in income terms. Clotfelter and Cook (2001) found that US state lotteries were both an implicit tax and regressive in the 1970's and 1980s', as well as being highly concentrated on the African American minority. Stranahan and Borg (1998) also found that African Americans and individuals with the lowest educational attainment bore a significantly higher lottery tax burden.

This regressivity, however, can also be seen in terms of where the money is spent. Moore (1994) points out that during the second reading of the Act creating the UK's National Lottery, there was very little discussion of the merits or demerits of the lottery as a means of raising funds. Several Lords (Donaghue and Houghton) noted the US evidence of the regressive nature of lottery revenue-raising against income, and expressed fears that funds would be distributed disproportionately to projects in the capital and other prosperous regions, rather than evenly across the country as a whole. Given that governments (directly or indirectly) control spending decisions, it would seem logical that they use the hypothecated element of funds generated from gambling (e.g. the 28% of lottery spend that go to "good causes" in the UK) in ways that at least benefit proportionately the lower-income and minority groups and regions generating the funds in the first place. However, the existing evidence does not suggest this as a likely outcome.

Rubenstein and Scafidi (2002), for example, found that the Georgia lottery for education was regressive in terms of its implicit taxation, and that ethnic minorities spent significantly more on the lottery. However, in addition higher income households received higher levels of benefit from the lottery-funded programmes than lower income households, caused by the patterns of spending on lottery products and the higher education level of the scholarships that it was funding. The benefits of such spending depend on the designation of eligible programmes, and the rules governing application. Borg and Mason (2001) found, in the case of an Illinois lottery to support education, that it caused displacement of other funds rather than addition to them. They concluded that lotteries designed to support education in reality do not (because of displacement), and that the excise tax inherent in the lottery itself was both a very inefficient and very regressive way of paying for such education spending. In the US education system, either lottery-funded grants tend to go to higher socio-economic groups or there is an expenditure displacement effect allowing lower taxes than would otherwise have been the case, disproportionately benefiting the better-off.

In the UK, Bailey (1995) argued that there has been little debate on what constituted "good causes" though he noted that the 1994 British Social Attitudes survey found preferences for increased spending to be heavily skewed towards health, education, pensions and the police, rather than arts and culture, which were seen as the preserve of affluent groups. Indeed, whilst 1 in 7 of the middle classes were found to want more spending on arts and culture, this only applied to 1 in 20 of working class respondents. In addition, Bailey (1995) argued that since the lottery funds only respond to applications, the system tended to favour eloquent, organised middle class groups at the expense of poorer groups and areas. Overall, he concluded that the system was likely to lead to self-interested lobbying rather than public accountability.

Bailey and Connolly (1997) note that legislation insists that lottery grants must be additional to existing government funding and that this is usually taken to mean the use of lottery revenues to fund spending that would otherwise not have taken place. Bailey (1995) argued that the restriction of lottery funding to capital projects was likely to skew local authority expenditure away from other public sector services. However, there is still the possibility that lottery funds may substitute for government spending to allow increased spending in other areas (indirect net additionality) or to completely substitute for spending (displacement), hence allowing taxes to be lower than they would otherwise be. This is most likely in areas of existing government spending i.e. sports, arts, heritage, health and education.

Oakley and Green (2001) argue that the lottery funding has become increasingly selective, and more generally that the new lottery Community Fund has been heavily influenced by the government's social exclusion agenda. Bailey (1995) and Bailey and Connolly (1997) also note that Local Authorities must usually match the lottery funds to some extent before they can access them. Recent budget cuts are likely to mean that lottery money actually allows some shifting of resources to other programme budgets, reducing the real direct net additionality. White (1999) also notes that local authority grants to upgrade leisure facilities were often seen as displacing existing funds. This situation worsened after the creation of the sixth good cause, (health, education and the environment), which both reduced funds to the other good causes and, with local authority reorganisation, increased the fear that the lottery was in substitution for at least some public spending, rather than in addition to it.

There are also economic development issues involved in the distribution of lottery spending. Virtually any spending will have an effect on economic development within a region, as Auyer (1995) highlighted in the case of Oregon. The financial resources made available can be substantial relative to existing funds. In the case of the UK's National Lottery for example, Bailey (1995) calculated in 1995 that the annual £1.1bn per annum designated for good causes was almost equal to the government's £1.3bn Single Regeneration Budget for social development, or equivalent to 0.76 pence on the basic rate of income tax.

This brief review of the literature in relation to the economic effects of gambling can be summarised in terms of four assertions:-

- That gambling taxes are relatively high and far more regressive than general sales taxes because low socio-economic groups are more likely to gamble than high income groups.
- That specific funds for "good causes" from lottery-derived revenue tend to benefit better-off groups because of the regulations determining spending.
- That spending of lottery funding on existing areas of government is likely to generate substitution rather than additional resources
- That there are potentially different geographic effects generated by the source and destination of gambling revenues, taxes and subsequent spending, both because of the socio-economic characteristics of gamblers, and because of the rules, regulations and practices regarding where and on what "good cause" spending is undertaken.

This literature and these assertions then provide the context for the detailed analysis of the two case studies, that of the UK's National Lottery scheme and the effects of EGMs in Queensland, Australia.

#### The UK National Lottery

Until the latest review (DCMS, 2003b) there were six "Good Causes" to which UK National Lottery money went. These are administered by the Arts Councils, Sports Councils, Heritage Fund, Millennium Commission (now ceasing to control additional funds) and the newly merged Community (charities) and New Opportunities (education, health and environment) Funds (DCMS, 2003a). Latest Department for Culture, Media and Sport (2003b) figures show that of the £12.9bn spent by April 2003, 16.3% had gone to the Arts, 15.1 % to Sport, 17.7% to Heritage, 15.3% to Millennium projects, 20% to Charities and 15.5% to the New Opportunities Fund.

The last 3 Funds are now being merged into one, with control of over 50% of the money raised by the Lottery for good causes in future (DCMS, 2003b). This new arrangement will be focused on "streamlined and easy access to funding" for community transformation and innovation, through both small and large projects. In addition, there will be different types of funding on offer under this new "mega-fund", to add to those already available through arts, heritage and sport. DCMS (2003b) summarises these as "open grants" (demand-led for community and voluntary groups); "national programme funding" (government-agreed targets for projects where applications may be invited or resources allocated); "transformation grants" (for projects of national significance); "Young People's Fund"; "Awards for all" and "Micro grants" (under £500) in England. A new "Olympic bid" funding stream is also being introduced. In addition, the UK government will devolve power to the National Assemblies and Parliaments in Wales, Scotland and Northern Ireland for setting priorities and strategies for their areas. These changes can be seen as a response to earlier criticisms of priorities that did not match the public view, as expounded by Bailey (1995).

In the DCMS (2002a) publication “*Lottery Funding: first 7 years*”, funding is shown as allocated either to individual regions of England and non-English nations of the UK, or allocated to England, England and Wales, Great Britain, or UK wide. This has led to the need to calculate a total figure that makes the assumption that any resources for programmes covering a number of regions are allocated on a simple per-capita basis. This can then be expressed as a simple total (in column 2), and as an index against the UK average per capita (column 6 of table 1). These figures can then be assessed relative to average gross income per head (derived from Regional Trends and shown as an index in column 3 of table 1), and to spending each week on the lottery against the UK average (columns 4 and 5). In each case an index is generated (with the UK being the average and having an index value of 1) In addition, two composite indexes that integrate spending on the lottery within regions and grants received from the lottery in these regions are also generated (columns 7 and 8). Results are shown in table 1 below.

(Table 1 Here)

To briefly explain the results in the table, the simple index of lottery expenditure (column 4) is above 1 where spend per person on the Lottery is above what one would expect on an equal per capita, or per household, basis. The lottery spend adjusted for income (column 5) divides the simple lottery spend by the index for average gross income (column 3) and thus this index is above 1 where spend per person is above what one would expect on an equal per capita and average income basis. The indexes of lottery expenditure against grant (columns 7 and 8) are below one where the region essentially "gains overall" (acknowledging that lottery spend amounts are above those given back, as only 28% of lottery revenues go to good causes). Column 7 looks at the simple index of lottery expenditure divided by the index of lottery grants. The final column essentially makes an adjustment of this by the index of average gross income, in practice dividing the index of lottery expenditure adjusted for relative income by the index of lottery grants.

Essentially, the tables show a broadly regressive relationship between expenditure on the lottery and average gross income in the regions, whereby the poorer regions in terms of income per head spend higher than average amounts on the lottery, both in absolute terms and relative to their incomes. In comparison, the richer regions such as East London, the South East, and South West spend less absolutely on the Lottery, and relative to their incomes. In terms of the relative gainers in lottery expenditure, London stands out (perhaps unsurprisingly), as does the South West of England, Northern Ireland, the North East of England, Scotland, and Wales. Taking expenditure and spending into account, these are also the areas that derive most overall benefit. When one looks, however, at this relative to income, the advantage disappears for Wales and the North East of England, and drops for Scotland, Northern Ireland, and the South West of England. London remains the major gainer, precisely as the Lords predicted, with Scotland, Northern Ireland, and the South West of England also as relative gainers, and other areas as relative losers (compared to their lottery expenditures). Whilst the newly combined “mega Fund” may help to redress this because of the high proportion of resources commanded and its focus on social and economic inclusion, there will still be some need to avoid the problems highlighted by Bailey (1995) of self-interested lobbying rather than public accountability, and an applications-based system that may favour eloquent, organised middle class groups at the expense of poorer groups and areas. Indeed, DCMS (2003b) acknowledges this very issue, though time will tell as to the effectiveness of any new streamlined grant-applications procedures.

## Electronic Gaming Machines, Logan and Queensland 1999-2000

These issues are, if anything, of even more importance in Australia, where the gambling industry has grown significantly over the last three decades. During this time there has been a fourfold increase in real gambling turnover, now more than \$95 billion, in real gambling expenditure, currently some \$821 per person, and in government revenue, at present accounting for some \$3,850 million in gambling-related taxation or about 10 percent of State government revenues. With \$871.3 million gross taxation revenue generated from gaming machines alone in Queensland (and only about \$35m specifically returned through the Community Benefit Fund), the State Government's interest is not unfounded (QOGR Annual Report 1999/2000). The reasons for exploration of the impacts of EGMs in a low socio-economic area (such as Logan) are provided by the Queensland Office of Gaming Regulation (QOGR) in their (1999) *Review of Gaming in Queensland*. They noted an increased public backlash against uncontrolled EGM growth with submissions from community groups such as BreakEven, and local Governments such as Logan City Council. According to Queensland's Office of Economic and Statistical Research (2003), the local Government Area of Logan has the following characteristics:

- 168,000 inhabitants, 4.6% of the Queensland total
- Relative concentrations in manufacturing, construction, wholesale and retail trades, and tradespersons, intermediate and elementary workers and labourers
- An unemployment rate of 10.1% compared to 8.1% for Queensland as a whole
- Disproportionately high numbers without post-school educational qualifications

Logan is therefore characterised as a relatively less well-off socio-economic area. Given previous evidence, therefore, it would be perhaps unsurprising if Logan is losing out relatively from gambling, in overall cost and benefit terms, from the tax revenue raised and community benefit funds spent in Logan. The table below sets out estimates of relative tax raising (costs) and community benefit funds (benefits) within the area of Logan compared to Queensland as a whole.

(Table 2 Here)

Essentially table two shows that, for Logan compared with Queensland, as generally, the taxes on gambling are regressive in relation to socio-economic status and income (with Logan generating 117% of the gambling revenues to government than would be justified by its population alone, and 125% when income is factored in), and that the area does not receive the benefits from the gambling fund that would be justified by its population (only 76% of those justified by its proportion of the population), let alone its contribution to the gambling revenues that produced the gambling fund in the first place. Figures related to applications for Community Benefit Funds (CBF) monies (derived from the annual reports of the Queensland Community Benefit Fund) show that :

- In Logan for 1993-2003, the average grant obtained was \$9,954, compared with \$9,149 for Queensland as a whole.
- Logan had 3.3% of total applications but 3.5% of total spend from the CBF, compared with its 4.6% of the Queensland population

Table 2 indicates in the final two columns (7 and 8), the combined effects of this "over payment" into gambling-related revenues and "under payment" of community benefit grants, in pure per capita terms (column 7) and then factoring in income levels (column 8).

These results for Logan can thus be seen as fitting in with the UK National Lottery data, but also other statistical research for Australia in general and Queensland in particular. Recent research (from the most recent Australian Household Expenditure Survey) by Worthington et al (2003) examined several different types of betting behaviour (including lotteries and EGM machines) and the factors that impact upon them. This study indicated that the overall incidence of gambling-related taxation is only mildly regressive with respect to income and was only a statistically significant relationship with on course betting. However, the research also revealed that factors other than income level (but which do impact on income) are also at play in determining gambling expenditures. Rather than the level of income itself it is its primary source, whether salaries and wages, self-employment, investments and superannuation, or pensions and other government benefits, that was found to be important. In addition, for EGM machines, socio-economic status was also found to be important in explaining gambling behaviour, with low socio-economic status related to higher expenditure on EGMs. This can be seen as impacting on the socio-economic status of Logan, which in table 2 we have crudely approximated through income levels.

Regression results in Brown et al (2003) also indicate that, at the Local Government Authority area level across Queensland as a whole, with “average EGM metered win per adult” as the dependent variable, as well as “approved EGMs per 10,000 adults” and “average number of EGMs per site” being positive strong and statistically significant explanatory variables (at the 5% level), per capita taxable income was also found to be a slightly negative explanatory variable (as would be predicted by the regressive relationship with gambling outlined in the literature) and significant at the 10% level.

Whilst Logan can therefore be seen as fitting in with the general trend in the literature, data from Logan does provide additional some additional evidence from the grant-giving process. Examination of the Gambling Community Benefit Fund website (<http://www.gcbf.qld.gov.au/html/about.html>) revealed that the fund operates via allocation of one-off applied-for grants (of up to \$30,000) to approved non-profit organisations, for activities or services that can demonstrably benefit the Community and Queensland. There are four funding rounds per year, via completion of a funding application package, and approval from an “independent” community-based committee appointed on a 3 year basis.

Statistics in table 2 show Logan to be relatively poor at terms of making successful applications. This may be, at least partly because of the nature of the applications process relative to the capacity of those making them, a problem Bailey (1995) pointed out for the UK lottery, (though successful grant applications were for relatively large amounts). Some statistical examination of the 12 postal coded areas in Logan obtaining CBF money was possible. This data indicated a strong negative correlation between the wealth of the postcode (as indicated by average house prices) and the CBF money per head it was generating (of -0.49, significant at the 5% 1-tailed level), showing that poorer areas were benefiting relative to richer ones. This relationship became much weaker (-0.146 and insignificant), however, when the central administrative area of Logan (which is more able to draw in outside administrative expertise), the poorest in terms of house prices and the strongest in terms of obtaining CBF money, was excluded. There was also a much stronger positive relationship between total grants awarded and pure size of population in the area (0.87, significant at 1% level). Superficial visual analysis of the groups obtaining grants also suggested that “professional” community organisations were predominant in their ability to obtain funding. This implies that although the money was being generally allocated according to population, the way in which the CBF is administered is detrimental to certain groupings without the expertise necessary to fill in the forms or manage the application process.

## Conclusions and Implications for Public Expenditure

The outstanding common feature of both cases is the regressive nature of tax receipts and subsequent spending against income at the geographic level. Both the UK National Lottery and Queensland’s EGMs can be seen to take disproportionately from less well-off areas, whilst gambling-revenue related spending is concentrated disproportionately on better-off ones, possibly partly related to the application-based nature of the systems in both the UK and Queensland. This paper thus adds UK and Australian geographically-based examples to the evidence in the literature from the United States concerning the hypothecated spending of gambling-related revenues, suggesting that there may be common features of general state-sponsored gambling systems. Great care and effort is needed to overcome these regressive features, particularly in the area of spending distribution, the facet most amenable to political control. This paper suggests at the very least, that more research needs to be undertaken into the effects of grant-distribution mechanisms on the impacts of gambling funded projects (the latest changes in the UK being monitored for example). More radically there may be the need to consider a different approach to the geographic distribution of gambling generated revenues, more directly related to local need, in order that issues of community harm and benefit from gambling can be more effectively addressed.

In the UK this may form part of a wider debate over fiscal funding and devolution. National Lottery derived funds do not come within the remit of the Barnett formula, which determines the level of fiscal “block grants” for primary government services that are received by England, Scotland, Wales and Northern Ireland. The UK’s Barnett formula (introduced in 1979) was designed to relate incremental changes in expenditure in Scotland, Wales and Northern Ireland to the expenditure margins which existed in 1979 between these countries and England. The formula operates by allocating a constant proportion of every increase in public spending in England to Scotland, Wales and Northern Ireland – this ratio being roughly based on the ratio of each country’s population to the population of England.

However, although the government proposes devolving some lottery priority-setting to Scotland, Wales and Northern Ireland's national political institutions, DCMS (2003b) clearly states that the devolved institutions do not have any control over the allocation of resources between themselves and the rest of the UK. In reality, the National Lottery generates resources in the same way as other taxes but is not subject to, (in the case of Scotland, Wales and Northern Ireland), the formal Barnett formula arrangements of the Treasury, instead fulfilling a de facto "formula by-pass role", whereby spending decisions are determined by the grant-giving criteria. DCMS (2003b) argues that the role of the National Lottery is to be "additional" to government spending. However, the new mega-fund encroaches on areas such as health and education where this distinction can be blurred at best, and where the aims of the fund in community development and social exclusion may make the situation even more complex.

Another way in which gambling-related resources could be channelled is through regional economic development activities (widely defined), with resources allocated according to need, defined for example by GDP per head. This type of formulation is particularly important not just because of the relatively significant sums that can be produced for economic development, but also because of the reality that the poorest regions/nations will have the greatest need for economic development resources, which cannot be guaranteed by the present lottery funding regime, or by a Barnett-type formula (see Bristow and Blewitt, 1999), not least because Barnett would not deal with disparities between English regions.

In the case of Queensland, because the vast majority of the government funds generated by gambling are already brought within the remit of general taxation-funded spending, there is a much stronger argument that those areas generating gambling-related taxation revenue benefit through receiving taxation-funded expenditures. In Australia there are also strong mechanisms in place to try and ensure that fiscal resources are allocated according to need, to ensure horizontal fiscal equalisation (Dollery and Worthington, 1996).

Another way to look at generally income-regressive gambling taxes, however, is the opportunity cost approach i.e. if the taxation revenue were not raised from gambling, where would this funding come from? American studies cited earlier indicated that gambling generated revenue substitutes for higher taxes on higher socio-economic groups. Therefore gambling taxation-funded services in poorer areas are substituting for ones being paid for by richer groups. Essentially, instead of the rich paying for the poor, the poor are paying for their own government spending, alleviating the burden on the rich. Given the relatively large proportion of Queensland's state taxes raised through gambling, this is likely to be both a significant problem and, simultaneously, one that it is now very difficult to alter. In some ways this situation is similar to that for tobacco and alcohol taxes in particular, and sales taxes in general. What is different is that there is a partial hypothecation to the spending of gambling revenue, via the Community Benefit Fund in the case of Queensland. The Community Benefit Fund expenditures are, therefore important, even though they use a relatively small proportion of the total revenues to government generated from EGM's, because they are the most visible use of the resources generated.

Because of the potentially discriminatory nature of the applications process for the Community Benefit Fund, it may be more effective to channel the remaining monies to elected bodies such as Local Government Authorities, in the form of an "Economic Benefit Fund", for spending on economic development measures designed to improve the local areas' future prospects. This would allow the large number of small grants to be pooled into more significant projects. During the period 1993-2003, over \$A6m dollars were distributed from EGM-generated revenue in the Logan area, an amount that would have been over \$A8m if population size had been the funding criterion and over \$A9.3m if the generation of the taxation revenue had been used instead. In 2001-2 (the last year for which annual figures are available), the \$1.3m actually received from the Community Benefit Fund would have risen to more than \$1.6m or to nearly \$1.9m depending on the criterion used. Given that Logan City Council (2003) planned to spend only \$815,000 on economic development projects, \$1.9m represents a sizable additional resource.

Gambling currently provides a base for hypothecated taxation in many countries around the world. The evidence presented in this paper indicates that geographically disparate costs are also imposed through the operations of gambling. Thus a geographically-based policy for utilising the resources may also be valid.



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Table 1 National Lottery Revenue and Expenditure per Region-(with unspecific allocated on equal per Person basis) Per Person

1: Region	2 : Total Lottery Grants (£m)	3 : Index of average gross income per person 1997-2000 (UK =1)	4 : Index of Lottery Expenditure per person 1997-2000 (UK =1)	5 : Index Adjusted for relative income Index of Lottery Expenditure per person 1997-2000 (UK =1)	6 : Index of National Lottery Grant per person (UK =1)	7 : Index of Lottery expenditure against Grant (person ) (UK =1) (1)	8 : Index of income adjusted lottery expenditure against Grant (person) (UK =1) (1)
UK	9675.02	1	1	1	1	1	1
North East	525.59	0.84	1.22	1.45	1.25	0.97	1.16
North West	1107.50	0.91	1.07	1.18	0.99	1.08	1.19
Yorkshire and Humber	736.74	0.87	1.11	1.29	0.90	1.24	1.43
East Midlands	514.76	0.95	1.05	1.11	0.76	1.39	1.47
West Midlands	766.77	0.93	1.11	1.20	0.88	1.26	1.36
East	643.38	1.08	0.91	0.85	0.73	1.25	1.16
London	1808.91	1.27	0.86	0.68	1.53	0.56	0.44
South East	920.85	1.21	0.97	0.80	0.70	1.39	1.14
South West	738.09	0.96	0.80	0.84	0.92	0.87	0.91
England	7762.60	1.03	0.99	0.96	0.96	1.03	1
Wales	538.31	0.78	1.05	1.34	1.13	0.93	1.19
Scotland	1016.79	0.91	1.04	1.14	1.22	0.85	0.94
Northern Ireland	357.33	0.69	0.72	1.05	1.30	0.56	0.81

Note : (1) Index numbers below 1 indicate region obtaining grants in excess of that expected given their expenditure on the lottery

Sources : derived from Regional Trends and DCMS (2002a)

Table 2 Logan and Queensland Data

1: Region	2 : Total Community Benefit Fund Grant (\$m) (1994-2003)	3 : Index of Mean Taxable Income Per Capita (Qld =1)	4 : Index of Gambling Revenue per person (Qld =1)	5 : Index Adjusted for relative income Index of Gambling Revenue per person (Qld=1)	6 : Index of Community Benefit Fund Grant Per person (Qld =1)	7 : Index of Gambling Revenue against Community Benefit Fund Grant per person) (Qld = 1)	8 : Index of income adjusted Gambling Revenue against Community Benefit Fund Grant per person) (Qld = 1)
Queensland	172.7	1	1	1	1	1	1
Logan	6.2	0.94	1.17	1.25	0.76	1.54	1.64

	Logan as Percentage of Queensland Total
Mean Taxable Income per capita (1)	93.65
Population (1)	4.6
Gambling Revenue (2)	5.4
Community Benefit Fund Proceeds (2)	3.5

Note : (1) Office of Economic and Social Research (2003)

(2) Queensland Office of Gaming Regulation (2003)